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Applicants have amended claim 12 to clarify the claimed subject matter and have added new claims 23-26 to better claim various embodiments of the above-identified invention. The new claims are fully supported by the specification and do not add new matter. For example, see Specification p. 12, lines 26-34 regarding new claims 23, 24 and 26 and Specification, p. 9, lines 12-16 regarding new claim 25.

Applicants respectfully submit that no new matter is added by way of this amendment and kindly request reconsideration of the pending claims in view of the comments below and the amendments herein.

Section 103(a): Claims 12 and 13 unpatentable over McNamara in view of Cabib

Independent claim 12 has been rejected under § 103(a) as being unpatentable over McNamara in view of Cabib. More specifically, the Office Action indicates that McNamara's Figure 2 describes "a source for illuminating said sample and causing regions in the sample to emit radiation at a second wavelength; an interferometer with a beamsplitter (33); a detector array (37); [and] a processor (28)." As the Office Action correctly points out, McNamara does not show an interferometer having rotating mirrors. The Office Action states, however, that Cabib discloses rotating mirrors that would have been obvious to combine with McNamara to obtain the claimed invention. Applicants respectfully traverse the rejection.

Amended claim 12 recites "a spectral imaging system . . . comprising . . . a source for illuminating said sample . . . ; an interferometer . . . , wherein said interferometer includes: at least two turning mirrors; and one polarizing beam splitter, wherein said polarizing beam splitter preferentially reflects a first polarization and preferentially transmits a second polarization . . . ; a detector array . . . ; and a processor . . . ." Nowhere does any of the cited references disclose or suggest the combination set forth in claim 12, whether considered alone or in combination with other cited art. For example, Applicants are unaware of any cited reference that teaches or suggests a polarizing beam splitter preferentially reflecting a first polarization and preferentially transmitting a second polarization. Although McNamara does describe a beamsplitter, McNamara and the other cited references fail to teach or suggest the polarizing beamsplitter set forth in the claimed invention.

For at least the above reasons, independent claim 12 is in a condition for allowance. Applicants respectfully request the withdrawal the rejection of this claim. Claim 13 depends from allowable claim 12 and thus is allowable for at least the same reasons as claim 12. This claim, however, recites additional novel and non-obvious elements that further distinguish the present invention over the cited art.

Dependent claim 13 recites a "spectral imaging system of claim 12, wherein said polarizing beam splitter is a polarizing cube." Applicants are unaware of any cited reference that discloses or suggests a polarizing cube. Hence, claim 13 is in condition for allowance.

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NEW CLAIMS

Claims 23-26 have been added to more adequately claim the various embodiments of the present invention. It is respectfully submitted that the new claims are fully supported by the specification as originally filed and thus do not introduce any new matter. It is believed that these claims are patentable over the cited art for at least the same reasons discussed above in connection with at least claim 12.

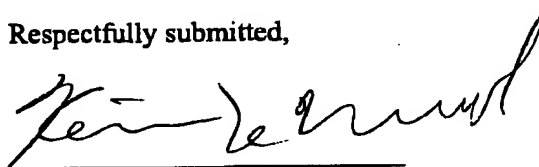
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,

12/6/01  
Date

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 5-11 have been cancelled.

1                   12.     (Once Amended) A spectral imaging system configured to provide an image of a  
2 sample, comprising:  
3                   [a sample;]  
4                   a source for illuminating said sample with radiation within a first band of wavelengths,  
5 wherein said first band of wavelengths excites regions within said sample causing said regions to emit  
6 radiation within a second band of wavelengths;  
7                   an interferometer for spectrally resolving said wavelengths within said second band of  
8 wavelengths, wherein said interferometer creates an interferogram of said sample that is superimposed on an  
9 image of said sample transmitted by said interferometer, wherein said interferometer includes:  
10                   at least two turning [~~mirrors~~] mirrors; and  
11                   one polarizing beam splitter,  
12                   wherein said polarizing beam splitter preferentially reflects a first polarization and  
13 preferentially transmits a second polarization;  
14                   a detector array, wherein said sample and said interferogram of said sample are imaged on  
15 said detector array, wherein said detector array outputs a plurality of signals corresponding to an intensity at  
16 each pixel of said array; and  
17                   a processor coupled to said detector array and coupled to a monitor, said processor displaying  
18 an image of said sample on said monitor.

1                   13.     The spectral imaging system of claim 12, wherein said polarizing beam splitter is a  
2 polarizing cube.

1                   23.     (New) The spectral imaging system of claim 12, wherein said first polarization is  
2 perpendicular to a plane of incidence (s-polarization).

1                   24.     (New) The spectral imaging system of claim 12 wherein said second polarization is  
2 parallel to a plane of incidence (p-polarization).

1                   25.     (New) The spectral imaging system of claim 12, wherein said at least two turning  
2 mirrors are configured to turn independently.

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- 1                   26.     (New) The spectral imaging system of claim 12, wherein said at least two turning  
2     mirrors are coated with a dielectric to minimize effects upon said first polarization and said second  
3     polarization.

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